



# Inclusive Home Design Ordinance: Synthesis & Commentary

*Note: sections in blue italics throughout this document pertain to commentary or interpretation. Sections in red are City of Tucson local amendments to the ANSI 117.1.*

## City of Tucson Ordinance 10463

## City of Tucson local amendments to the 1998 American National Standard Accessible and Usable Buildings and Facilities Code (*ANSI 117.1*).

### 103.1 Waiver of Provisions in this Standard

Upon a determination by the Building Official that by virtue of terrain or other unusual characteristics of the building site, there are practical difficulties associated with compliance of any specific provision of this standard, and that the additional cost to comply with the applicable provision of this standard shall exceed two hundred dollars, as shown by clear and convincing evidence presented by the applicant, the Building Official may waive the requirement of that specific provision.

### 106.5 Defined Terms.

**accessible route:** An interior or exterior circulation path that complies with this standard *as amended by these local amendments. See section 1003.3 for details. The exterior accessible route needs to be clearly indicated on all plans with the exception of models. Exterior route does not need to appear on model plans but will be covered by field inspection. The exterior route will need to meet all the requirements of this ordinance but it is noteworthy that there are no requirements that floor or ground surfaces need to be stable, firm or slip resistant.*

**destination-oriented elevator system:** An elevator system that provides lobby controls to select destination floors, lobby indicators designating which elevator to board, and a car indicator designating the floors at which the car will stop.

**dwelling unit:** A detached one, two or three family dwelling unit having one occupiable floor at grade level. *The occupiable floor will include all raised and sunken areas within less than 6 vertical feet of the occupiable floor level, with the exception of those areas exempted under section 1003.3 (6 feet is used as it is the number delineating story above grade plane in the International Residential Code).*

**element:** An architectural or mechanical component of a building, facility, space, or site.

### 201 General

This standard provides technical criteria for making sites, facilities, buildings, and elements accessible. The administrative authority shall provide scoping provisions to specify the extent to which these technical criteria apply. These scoping provisions shall address the application of the standard to: each building and occupancy type; new construction, alterations, temporary facilities, and existing buildings; specific site and building elements; and to multiple elements or spaces provided within a site or building.

### 202 Dwelling Units

Chapter 10 of this standard contains technical criteria for Type A dwelling units, Type B dwelling units, and dwelling units with accessible communication features. The administrative authority shall specify, in separate scoping provisions, the extent to which these technical criteria apply. These scoping provisions shall address the types and numbers of dwelling units required to comply with each set of dwelling unit criteria.

### 203 Administration

The administrative authority shall provide an appropriate review and approval process to ensure compliance with this standard.

### 204 Application to Dwelling Units

Pursuant to Sections 201 and 202, the provisions of Chapter 10 of this Code, as adopted and amended by the administrative authority, shall extend to and apply to new construction or all dwelling units for which plans are submitted to the Building Official beginning January 1, 2008. Dwelling units for which plans have already been certified prior to the enactment of this ordinance shall be exempt from its provisions until the date of their next annual renewal.

**301.1 Scope.** The provisions of this chapter shall apply where required by the scoping provisions adopted by the administrative authority or by Chapters 4 through 10.

**303.1 General.** Changes in level in floor or ground surfaces shall comply with Section 303.2 and 303.3.

**303.2 Vertical.** Changes in level of 1/4 inch (6 mm) high maximum shall be permitted to be vertical.

**303.3 Beveled.** Changes in level between 1/4 inch (6 mm) high minimum and 1/2 inch (13 mm) high maximum shall be beveled with a slope not steeper than 1:2.

**303.4 Ramped.** Changes in level greater than 1/2 inch (13mm) shall be ramped.

**308.1 General.** Reach ranges shall comply with Section 308.

**308.2 Forward Reach.**

**308.2.1 Unobstructed.** Where a forward reach is unobstructed, the high forward reach shall be 48 inches (1220 mm) maximum and the low forward reach shall be 15 inches (380 mm) minimum above the floor or ground.

**308.3 Side Reach.**

**308.3.1 Unobstructed.** Where a clear floor or ground space allows a parallel approach to an element and the side reach is unobstructed, the high side reach shall be 48 inches (1220 mm) maximum and the low side reach shall be 15 inches (380 mm) minimum above the floor or ground.

**EXCEPTION:** Existing elements shall be permitted at 54 inches (1370 mm) maximum above the floor or ground.

**309.3 Height.** Operable parts shall be placed within one or more of the reach ranges specified in Section 308.2.1 and 308.3.1.

**EXCEPTIONS:**

1. Where the use of special equipment dictates otherwise.
2. Where electrical and communications systems receptacles are not normally intended for use by building occupants.

**401.1 Scope.** Accessible routes required by the scoping provisions adopted by the administrative authority shall comply with the applicable provisions of this chapter.

**402.1 General.** Accessible routes shall comply with Section 402.

**402.2 Components.** Accessible routes shall consist of one or more of the following components: Walking surfaces with a slope not steeper than 1:20, doorways, ramps, curb ramps, elevators, and wheelchair (platform) lifts. All components of an accessible route shall comply with the applicable portions of this standard adopted by the Mayor and Council and as amended by these local amendments.

**403.5 Clear Width.** Clear width of an accessible route shall comply with Table 403.5.

**Table 403.5—Clear Width of an Accessible Route**

Segment Length	Minimum Segment Width
≤ 24 inches (610 mm)	32 inches (815 mm) <sup>1</sup>
> 24 inches (610 mm)	36 inches (915 mm)

<sup>1</sup>Consecutive segments of 32 inches (815 mm) wide must be separated by a route segment 48 inches (1220 mm) long minimum and 36 inches (915mm) wide minimum.

**404.1 General.** Doors and doorways that are part of an accessible route shall comply with Sections 404.2.5 and 404.2.7.

**404.2.5 Thresholds at Doorways.** Thresholds, if provided, at doorways shall be 1/2 inch (13 mm) high maximum. Raised thresholds and changes in level at doorways shall comply with Sections 303.1, 303.2 and 303.3 only.

**404.2.7 Door Hardware.** Handles, pulls, latches, locks, and other operable parts on accessible doors shall have a shape that is easy to grasp with one hand and does not require tight grasping, pinching, or twisting of the wrist to operate. Such hardware shall be 34 inches (865 mm) minimum and 48 inches (1220 mm) maximum above the floor or ground. Where sliding doors are in the fully open position, operating hardware shall be exposed and usable from both sides. *This requirement shall not apply to pocket doors.*

**EXCEPTION:** Locks used only for security purposes and not used for normal operation are permitted in any location.

**604.5 Grab Bars.** Grab bars for water closets shall comply with Section 609. Grab bars shall be provided on the rear wall and on the side wall closest to the water closet. *All grab bar requirements apply to blocking only for future installation in accordance with section 1003.11.2.*

**607.4 Grab Bars.** Grab bars shall comply with Sections 607.4 and 609.

**607.4.1.1 Bathtubs with Permanent Seats: Back Wall.** Two grab bars shall be provided on the back wall, one complying with Section 609.4 and the other 9 inches above the rim of the bathtub. Each grab bar shall be 15 inches (380mm) maximum from the head end wall and 12 inches (305mm) maximum from the foot end wall.

**607.4.2.1 Bathtubs without Permanent Seats: Back Wall.** Two grab bars shall be provided on the back wall, one complying with Section 609.4 and the other 9 inches (230mm) above the rim of the bathtub. Each grab bar shall be 24 inches (610mm) long minimum and shall be 24 inches (610mm) maximum from the head end wall and 12 inches (305mm) maximum from the foot end wall.

**609.4 Position of Grab Bars.** Grab bars shall be mounted in a horizontal position, 33 inches (840 mm) minimum and 36 inches (915 mm) maximum above the floor.

**EXCEPTION:** Height of grab bars on the back wall of a bathtub shall comply with Sections 607.4.1.1 and 607.4.1.2.

**610 Seats.** *This green section is strictly optional and applies to blocking only in accordance with section 1003.11.2. Blocking for seats may be added when one feels that an accessible seat may eventually be installed.*

**610.1 General.** Seats in accessible bathtubs and shower compartments shall comply with Section 610.

**610.2 Bathtub Seats.** A removable in-tub seat shall be 15 inches (380 mm) minimum and 16 inches (405 mm) deep maximum, and shall be capable of secure placement. A permanent seat shall be 15 inches (380 mm) deep minimum and be positioned at the head end of the bathtub. The top of the seat shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum above the bathroom floor.

**610.3 Shower Compartment Seats.** Where a seat is provided in a roll-in shower compartment, it shall be a folding type and shall be on the wall adjacent to the controls. Seats shall be L-shaped or rectangular. The top of the seat shall be 17 inches (430 mm) minimum and 19 inches (485 mm) maximum above the bathroom floor. In a transfer-type shower, the seat shall extend from the back wall to a point within 3 inches (75 mm) of the compartment entry. In a roll-in-type shower, the seat shall extend from the control wall to a point within 3 inches (75 mm) of the minimum required seat wall width.

**610.3.1 Rectangular Seats.** The rear edge of a rectangular seat shall be 2 1/2 inches (64 mm) maximum from the seat wall, and the front edge 15 inches (380 mm) minimum and 16 inches (405 mm) maximum from the seat wall. In a transfer-type shower the side edge of a rectangular seat shall be 1 1/2 inches (38 mm) maximum. In a roll-in-type shower, the side edge of a rectangular seat shall be 1 1/2 inches (38 mm) maximum from the control wall.

**610.3.2 L-Shaped Seats.** The rear edge of an L-shaped seat shall be 2 1/2 inches (64 mm) maximum from the seat wall, and the front edge 15 inches (380 mm) minimum and 16 inches (405 mm) maximum from the seat wall. The rear edge of the "L" portion of the seat shall be 1 1/2 inches (38 mm) maximum from the wall and the front edge shall be 14 inches (355 mm) minimum and 15 inches (380 mm) maximum from the wall. The end of the "L" shall be 22 inches (560 mm) minimum and 23 inches (585 mm) maximum from the main seat wall.

**610.4 Structural Strength.** Allowable stresses in bending, shear, and tension shall not be exceeded for materials used where a vertical or horizontal force of 250 pound (1112 N) is applied at any point on the seat, fastener mounting device, or supporting structure.

**1001.1 Scoping.** Dwelling units required to be accessible by the scoping provisions adopted by the administrative authority shall comply with the applicable provisions of this chapter.

**1003.1 General.** Dwelling units shall comply with Sections 1003.2, 1003.3, 1003.5, 1003.9 and 1003.11, as amended by these local amendments.

**1003.2 Accessible Entrance.** There shall be at least one accessible entrance on an accessible route from public and common areas, including, but not limited to, a driveway or public street or sidewalk. This entrance shall not be to a bedroom. *This entrance may be through a garage using the garage overhead door for ingress. Please note that if the accessible entrance is to be on an exterior or under porch slab, that all weep screed clearances for stud wall construction need to be respected. Compliance shall require either:*

- *A recessed channel in the exterior slab a minimum of 2 inches deep under the weep screed at the most shallow point, sloped to drain, and with a horizontal width projecting a minimum of one inch beyond the edge of the finished wall.*
- *Raising the stud wall on a minimum 2" concrete or masonry stem wall.*
- *Any other listed or designed method.*

**1003.3 Accessible Route.** Accessible routes within dwelling units shall comply with Sections 1003.3.1 and 1003.3.2.

**EXCEPTION:** The following are not required to be on an accessible route:

1. A raised floor area in a portion of a living, dining, or sleeping room
2. A sunken floor area in a portion of a living, dining, or sleeping room
3. A mezzanine that does not have plumbing fixtures or an enclosed habitable space
4. Rooms located on a floor other than that served by the accessible entrance

**1003.3.1 Location.** At least one accessible route shall connect all spaces and elements which are a part of the dwelling unit. Where only one accessible route is provided, it shall not pass through restrooms, closets, or similar spaces.

**1003.3.2 Components.** Accessible routes shall consist of one or more of the following elements: walking surfaces with a slope not steeper than 1:20, doorways, ramps, elevators, and wheelchair (platform) lifts.

**1003.4 Walking Surfaces.** Walking surfaces that are part of an accessible route shall comply with Sections 1003.4.1 and 1003.4.2.

**1003.4.1 Width.** Clear width of an accessible route shall comply with Section 403.5.

**1003.4.2 Changes in Level.** Changes in level shall comply with Section 303 except Section 303.4.

**EXCEPTION:** Where exterior deck, patio or balcony surface materials are impervious, the finished exterior impervious surface shall be 4 inches (100 mm) maximum below the finished floor level of the adjacent interior spaces of the dwelling unit.

**1003.5 Doors and Doorways.** Doors and doorways shall comply with Sections 1003.5.1 and 1003.5.2 as amended by these local amendments.

**1003.5.1 Accessible Entrance Door.** The accessible entrance door to the dwelling unit shall comply with Section 404.2.5 and 404.2.7, as amended by these local amendments.

**EXCEPTION:** Maneuvering clearances required by Section 404.2.4 shall not be required on the dwelling unit side of the primary entrance door.

**1003.5.2 User Passage Doorways.** Doorways on an accessible route intended for user passage shall comply with Sections 404.2.7 and 1003.5.2.1 through 1003.5.2.3.

**1003.5.2.1 Clear Width.** Doorways shall have a clear opening of 30 inches (765 mm) minimum. Clear opening of swinging doors shall be measured between the face of the door and stop, with the door open 90 degrees.

**1003.5.2.2 Thresholds.** Thresholds shall comply with Section 303.1, 303.2, and 303.3.

**EXCEPTION:** Thresholds at exterior sliding doors shall be permitted to be 3/4 inch (19 mm) high maximum provided they are beveled with a slope not steeper than 1:2.

**1003.5.2.4 Double Leaf Doorways.** Where an inactive leaf with operable parts more than 48 inches (1220 mm) above the floor or ground is provided, the active leaf shall provide the clearance required by Section 1003.5.2.1.

**1003.9 Operable Parts.** Lighting controls, electrical receptacles, environmental controls, and user controls for security or intercom systems shall comply with Section 309.3.

**EXCEPTIONS:**

1. Electrical receptacles serving a dedicated use.
2. Appliance mounted controls or switches.
3. A single outlet where all of the following conditions are met: (a) the outlet is above a length of countertop that is uninterrupted by a sink or appliance; and (b) at least one receptacle complying with Section 1003.9 is provided for that length of countertop; and (c) all other receptacles provided for that length of countertop comply with Section 1003.9.
4. Floor electrical receptacles.
5. Plumbing fixture controls.
6. HVAC diffusers.
7. Ceiling fan mounted controls.

**1003.11.2 Grab Bar Reinforcement.** In bathrooms on the accessible route, reinforcement shall be provided for future installation of grab bars and shower seats at water closets, bathtubs, and shower compartments so as to permit installation of grab bars and seats complying with Section 604.5, 607.4, or 610. Reinforcement shall be provided for future installation of grab bars meeting those requirements.

**EXCEPTION:** Reinforcement is not required in a room containing only a lavatory and a water closet, provided that the room does not contain the only lavatory or water closet on the accessible level of the dwelling unit.

Blocking need not be installed behind a fiberglass shower surround. Nothing in this ordinance shall be construed as requiring the installation of grab bars or shower seats referred to in Sections 604.5, 607.4 and 610.